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Statement of
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Board of Governors of the Federal Reserve System
before the
Subcommittee on Domestic and International Monetary Policy, Trade and Technology
of the
Committee on Financial Services
U.S. House of Representatives

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Thank you for inviting me to report on the Federal Reserve's activities in support of new currency design and coin distribution. There has been a great deal of activity in the past few years. To deter counterfeiting, in October 2003, the Reserve Banks issued a redesigned \$20 note, and on Monday, we helped unveil the design for the new \$50 note, which will be issued beginning this fall. Last month, the Reserve Banks distributed the first of two new nickel designs to be issued in 2004 as part of the Westward Journey series. The Reserve Banks also continue to distribute a newly designed quarter every ten weeks as part of the fifty-state quarter program. Before turning to the specific issues raised by the Subcommittee, it may be helpful to describe briefly the Federal Reserve's roles in currency issuance and coin distribution.

Currency Issuance and Coin Distribution

One of the Federal Reserve's key responsibilities is to ensure that enough currency and coin is available to meet the public's needs. In that role, the Reserve Banks provide wholesale cash--currency and coin--services to depository institutions, which, in turn, provide cash services to the general public.¹

Each year the Federal Reserve Board determines the need for new currency, which it purchases from the Department of the Treasury's Bureau of Engraving and Printing (BEP) at approximately the cost of production. The Reserve Banks issue Federal Reserve notes at face value, and these notes are recorded as liabilities on the Reserve Banks' balance sheets. The Reserve Banks, as required by law, pledge collateral (principally U.S. Treasury securities) equal to the face value of currency in circulation. Federal Reserve notes accounted for about 95 percent of the almost \$716 billion of currency and coin in circulation as of March 31, 2004. The Federal Reserve's role in providing coins is more limited. The United States Mint (the Mint)

¹ The Federal Reserve provides cash services to more than 10,000 of the 19,000 banks, savings and loans, and credit unions in the United States. The depository institutions that choose not to obtain cash services directly from the Federal Reserve obtain cash services through correspondent banks.

issues circulating coins that the Reserve Banks purchase at face value and distribute, at the wholesale level, to depository institutions. These institutions, in turn, provide coins to the public. The Reserve Banks now distribute about 90 percent of coin orders and deposits through operators of coin terminals, which are predominantly armored carriers. Coins represent about five percent of total currency and coin in circulation, or about \$35 billion, as of March 31, 2004.

Currency Design

Although the Secretary of the Treasury, and not the Federal Reserve, has authority to approve new currency designs, the Federal Reserve works actively and collaboratively with the Treasury, the Secret Service, and the BEP to analyze and recommend counterfeit deterrence strategies to the Secretary. We monitor and analyze currency flows and counterfeiting data both domestically and internationally to understand better the use of U.S. currency, as well as incidents of counterfeiting. The Federal Reserve also maintains close contact with commercial banks that provide currency internationally, as well as with other central banks, to monitor counterfeiting activity at the international level.

Counterfeit-deterrent features in U.S. currency continue to evolve to ensure public confidence in the security of Federal Reserve notes. The Series-2004 design changes to the \$20 note added complex colored line patterns and a system to deter digital counterfeiting, while maintaining the watermark, security thread, and color-shifting ink of the 1996 design. Ongoing research is aimed at defending against future threats, especially those posed by continued improvements in, and the low-cost availability of, inkjet printers and other devices used to digitally counterfeit U.S. currency. For instance, the Federal Reserve and the BEP have devoted significant resources to a twenty-seven nation effort, through the Bank for International Settlements, to combat color copier and inkjet counterfeiting. The Federal Reserve appreciates the assistance of a number of private companies in the United States and abroad that have

worked with us voluntarily to deploy technology in their products that will protect their customers and the public from the risks of counterfeit currency. These efforts are a key component of the three-pronged U.S. counterfeit deterrence strategy that relies on currency designs, public education, and law enforcement. Although the focus of today's hearing is primarily on design issues, I would like to emphasize that public education and law enforcement also play a vital role in counterfeit deterrence.

Adjustments by Reserve Banks to Improve Coin Distribution

Turning to recent experience with coins, for the past several years, the Reserve Banks have worked to reduce inefficiencies by implementing a program to manage their coin distribution from a national perspective. For example, the Reserve Banks now provide the Mint with a single monthly coin order for all districts, together with five-month projections of future needs.² The Reserve Banks have also worked closely with armored carriers and depository institutions to understand their processes and constraints in meeting the public demand for circulating commemorative coins. The result is a better balance of coin inventories across the country.

The Federal Reserve worked with the Mint to implement the popular fifty state quarter program in 1999, the golden dollar coin in 2000, and most recently, the Westward Journey nickel program. The fifty state quarter and Westward Journey nickel programs have been both innovative and challenging, as implied by the term "commemorative circulating coin" that is used to describe the coins issued in the programs. Innovative, because the goal is to satisfy the demand for both a transactional and commemorative coin in a single coin, which is distributed through the normal wholesale distribution channels and whose design changes frequently.

² It is difficult to forecast demand for circulating coins. The normal demand for coins is highly seasonal and reflects retail cycles. Demand for coin is highest during summer and year-end holidays, and relatively low for the rest of the year.

Challenging, because frequent design changes have affected the Reserve Banks' inventory and payment processes that are designed to meet wholesale demand efficiently. Challenging also because heightened public expectations that circulating commemoratives will be widely available can place added pressure on the wholesale distribution system.

To adjust to these new commemorative circulating coins, the Reserve Banks have changed their payment practices. For example, as the Mint issues each new coin design, Reserve Banks have suspended their normal practice of first paying out previously circulated coins to depository institutions, and instead have paid out the new designs for initial introductory periods ranging from a few weeks to two years, in the case of the golden dollar.

Demand for Dollar Coins

The Mint and the General Accounting Office (GAO) have identified a number of factors that influence the demand for dollar coins. The title of the GAO's 2002 report, *New Dollar Coin Marketing Campaign Raised Public Awareness but not Widespread Use*, confirms the Federal Reserve's experience in distributing dollar coins.³ Publicity campaigns and promotions raise public interest in coins as collectibles but do not address the impediments to transactional use. Table 1 provides a rough estimate of the number of golden dollars available for use in transactions.

The GAO reported a number of barriers to widespread circulation of dollar coins, including the following:

- *Co-circulation with dollar notes*: the public generally prefers to carry notes because they weigh less.

³ *New Dollar Coin Marketing Campaign Raised Public Awareness but not Widespread Use*. GAO-02-896, September 2002.

- *Network effects*: there is interdependency of demand, in that individuals are unlikely to use dollar coins until retailers stock them, and retailers will not stock them until the public uses them. Banks and armored carriers will not invest in inventory and equipment to handle the coins until they perceive significant demand for the coins.
- *Higher fees for distribution of coins rather than notes*: armored carriers charge higher fees to transport coins than notes, and charge to roll both new and recirculated coins.

While all of these factors affect the demand for dollar coins, surveys and reports consistently identify the dollar note as the principal barrier to successful circulation of dollar coins. Nevertheless, dollar coins are regularly used in certain markets. Overall for 2003, the Reserve Banks report average monthly dollar coin payments of \$15.2 million, average monthly receipts of \$9.5 million, and average monthly net payments of \$5.7 million. Operators of vending and Postal Service machines, public transit, and some toll roads dispense dollar coins in change. The Reserve Banks' largest depository-institution customers have indicated that public transit authorities and the Postal Service are the principal users of dollar coins. Although neither of these groups has expressed a preference for one design of dollar coin over another, other businesses have requested that Reserve Banks make available golden dollars segregated from Susan B. Anthony (SBA) coins. Reserve Banks, however, do not sort individual coins and have no machines that are able to distinguish between the two types of circulating dollar coins.

Susan B. Anthony coins, however, could be removed from circulation if the Mint were to purchase dollar coins received by Reserve Banks from circulation, sort the coins, and destroy the SBAs or place them into long-term storage. We understand that the premise of such a program is that the public's total demand for dollar coins could increase if unmixed golden dollars were available rather than commingled SBAs and golden dollars. In general, a program to remove SBAs from circulation would need to consider the seigniorage that could be gained from greater

circulation of golden dollars in relation to the costs of the program, and the potential savings to society from an overall increase in the use of dollar coins relative to one-dollar notes.

Recent Experience with Dollar Coins, Quarters, and Nickels

The recent experience of the Reserve Banks with changes in coin design has generally been that inventories and operating costs for coins have increased. Reserve Banks acquired sufficient inventories of dollar coins in the first two years of golden dollar circulation to satisfy the demand by depository institutions for most of the following two years. Despite efforts by the Reserve Banks, the Mint, and depository institutions to manage demand, inventories of quarters at Reserve Banks are now more than triple their 1999 level. From 1999 to 2003, Reserve Bank direct costs for distributing coins have increased at an average annual rate of about 12 percent, three times the rate of Reserve Bank direct costs for distributing currency.⁴

The increases in Reserve Bank coin inventories and costs result largely from a mismatch between the Federal Reserve's role as the wholesale distributor of coins to depository institutions and public demand for commemorative coins in small quantities. The Reserve Banks' coin distribution system is designed to satisfy depository institutions' needs for large quantities of coins for transactional purposes. Publicity about new coin designs understandably encourages consumers' interest in the coins, but so far much of the demand has reflected individuals' desires to collect one or two coins of each design. In this situation, frequent changes in design result in large initial payments of new design coins to depository institutions and the subsequent return of coins after the initial demand for collectibles and on-going transactional demand have been met.

In addition, the Reserve Banks and depository institutions absorb the costs of ordering and distributing coins that are broadly intended for transactional use, including circulating

⁴ For comparison, the Reserve Banks also introduced four new note designs during this period: Series-1996 \$20 notes in 1999, Series-1996 \$5 and \$10 notes in 2000, and Series-2004 \$20 notes in 2003.

commemoratives.⁵ Overall, the wholesale coin distribution system is designed to be efficient for distributing large numbers of coins for transactional purposes, but is less efficient at distributing the relatively small number of coins needed to satisfy public demand for commemoratives.

Dollars

Chart 1 at the end of my statement shows that net payments of dollar coins surged to more than \$558 million in 2000, but dropped sharply in the succeeding years. Publicity and efforts to stimulate demand caused net payments of dollar coins to rise sharply in 2000, and payments continued at an elevated, though decreasing, rate through 2002. During 2003, total net payments of dollar coins to circulation were about \$69 million, which represents a return to a level of annual payments experienced in the five years before the introduction of the golden dollar created temporary heightened demand. On March 31, 2004, Reserve Banks held more than \$92 million in dollar coins, approximately the target inventory level for meeting transactional demand.

Quarters

The Federal Reserve has issued a new state quarter design every ten weeks since January 1999. The public's interest in the widely publicized state quarters caused the Reserve Banks to distribute as many as 1.6 billion pieces of a single state quarter design in the early days of the program.⁶

⁵ In contrast, legislation requires the Mint to recover its costs for distributing numismatic coins that are specifically intended to meet the demand of collectors. As a consequence, the Mint must charge a mark-up over the face value of coins that creates a relative disincentive for the public to obtain circulating commemoratives directly from the Mint.

⁶ Virginia state quarters released in October 2000.

Chart 2 shows that Reserve Bank quarter inventories averaged nearly \$621 million in 2002. Knowing that existing inventories will satisfy transactional demand for some time, the Reserve Banks, since 2002, have ordered 450 million of each new state quarter, an amount that satisfies consumer demand. Although this initiative reduced the growth of Reserve Bank quarter inventories, on March 31, 2004, the Reserve Banks still held more than \$515 million in quarters, which is approximately \$183 million more than the target level for the upper limit of inventory needed to satisfy transactional demand.

Nickels

The Federal Reserve and the Mint used lessons learned from the golden dollar and state quarter programs to manage the distribution of the new Westward Journey nickel designs. A number of factors seem to have influenced a more orderly initial rollout of the first new nickel in the program. Modest initial publicity about the new design tempered public demand, and perhaps most importantly, there will be no more than two new nickel designs this year and next. Transactional demand for nickels is significantly lower than for quarters, allowing the Reserve Banks to reduce their inventories of old design nickels for months in anticipation of the issue of the new design. The Reserve Banks initially ordered 300 million nickels, which were positioned in most of their locations before the release date. The objective was to make sufficient quantities available in the first four weeks of circulation when demand is highest for commemorative coins. The initial introduction has gone smoothly. It is still a bit early, however, to assess fully the success of these measures in managing inventories of nickels.

Conclusion

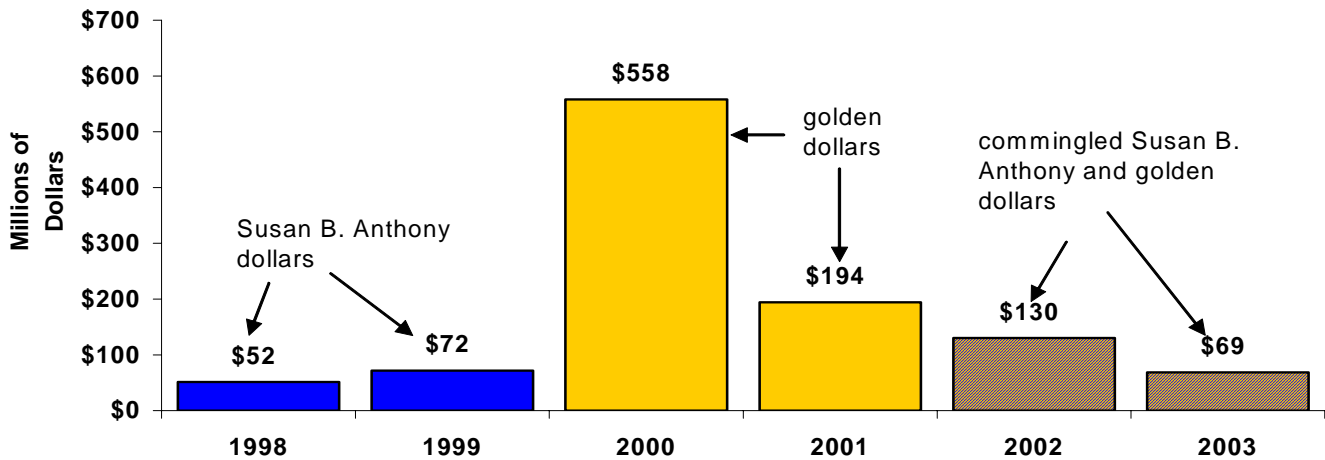
The Federal Reserve is working closely with the BEP and the Secret Service to define the appropriate timing for introducing design changes for the \$100 Federal Reserve note, and to

assess whether to add additional counterfeit deterrence features to the \$5 and \$10 notes. With regard to coins, it is important to recognize that there are significant uncertainties about the effects of additional changes to circulating coin designs, particularly to dollar coins. The Federal Reserve's experiences since 1999 suggest that flexibility in implementing new coin programs, along with care in publicizing them, will allow us to address better the inventory and distribution challenges of these programs. For example, the smooth introduction of the first new nickel and experience thus far suggests that there are advantages to releasing no more than two new designs per year. This rate of introduction, at least for widely circulating coins, allows the Reserve Banks more time to draw down inventories of old designs and build up stocks of new designs for the initial distribution. If experience shows over time that higher rates of introduction can be managed effectively, the Reserve Banks and the Mint could increase the rate of introduction in accordance with carefully prepared plans. In addition, alternative distribution strategies that complement wholesale distribution could be explored.

Finally, we would advise against unduly stimulating public interest in new designs, which appears to cause intense initial interest and to place significant pressure on Reserve Banks and depository institutions, with limited long-term changes in transactional demand. We are very concerned that there could be significant public frustration with depository institutions and the Reserve Banks if expectations are not met for the distribution of new coins. If long-term demand grows slowly, depository institutions and the Reserve Banks may need to limit the amount of dollar coins that they order in order to manage their inventories effectively. If and as long-term demand does increase, the Reserve Banks will work closely with the Mint to meet demand in accordance with their obligation to provide for an elastic currency.

Chart 1

Reserve Bank Dollar Coin Net Payments



Note: In calendar years 2000 and 2001, the Reserve Banks distributed only golden dollars.

Table 1

Estimated Number of Golden Dollars in Circulation

(millions of pieces, as of March 2004)

Number of Golden Dollars Minted for Circulation ¹	1,400
Estimated Number of Golden Dollars in Reserve Bank Inventory (75 percent of commingled inventory)	(69)
Number of Golden Dollar Coins Held in Mint Inventory	(300)
Estimated Number of Golden Dollars in Circulation	1,031
Estimated Number of Golden Dollars held by Depository Institutions	n.a.
Estimated Number of Golden Dollars held as Collectibles (67 percent in 2000 Coinstar Poll) ²	(690)
Estimated Number of Golden Dollars Available for Use in Transactions	341
Memo:	
\$1 Notes in Circulation	7,800
Estimated Number of Golden Dollars Available for Use in Transactions as a Share of Golden Dollars Available for Use in Transactions and \$1 Notes in Circulation ³	4.2%

1 The estimated number of Susan B. Anthony coins minted from 1976 through 2000 is 970 million, of which an estimated 23 million remain in Reserve Bank inventory commingled with golden dollars (includes Reserve Bank inventory at coin terminals).

2 The estimated 67 percent held as collectibles is applied to the estimate of all golden dollars held outside of Reserve Bank and Mint inventories, including an unknown amount of inventories held by depository institutions.

3 The GAO has reported that it believes the estimated share is closer to one percent based on alternative survey methodology (see *Widespread Use*, p. 37).

Chart 2

Monthly Average Coin Inventories of Reserve Banks by Denomination, 1990 - 2003

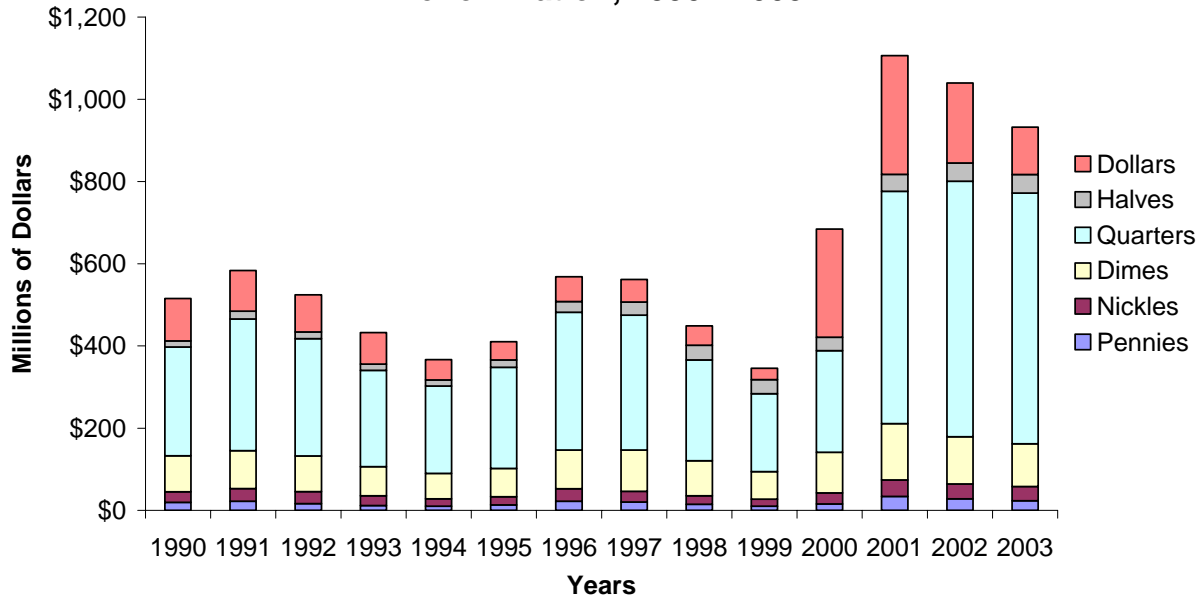
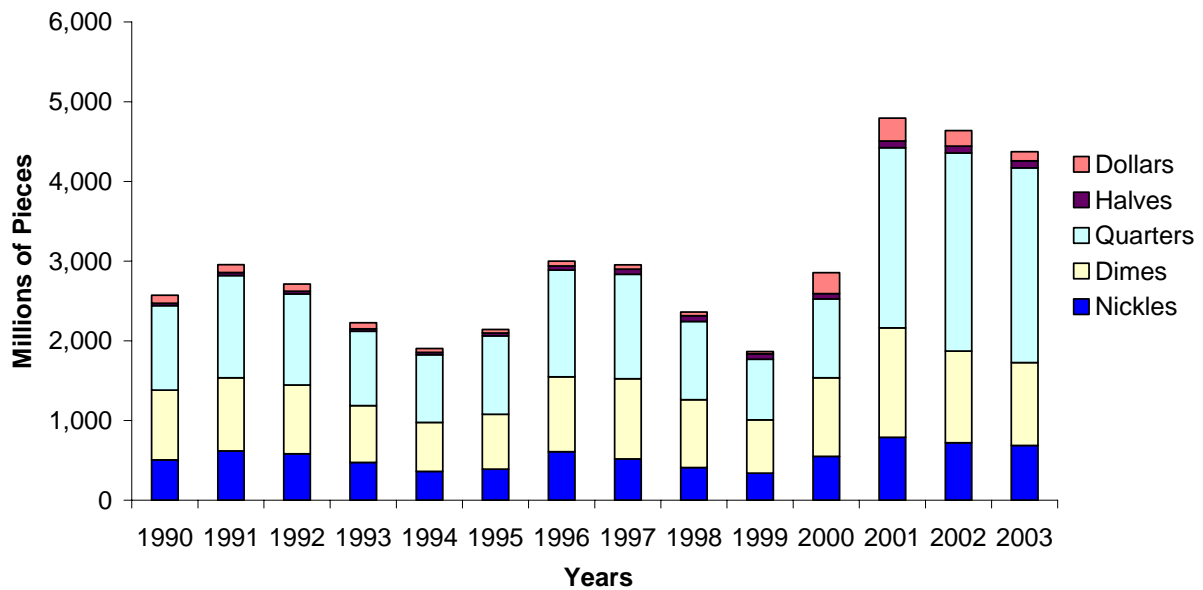


Chart 3

Monthly Average Coin Inventories of Reserve Banks by Denomination, Excluding Pennies, 1990 - 2003



Note: Pennies accounted for about 2.4 billion pieces in 2003 and are not shown in order to preserve the scale of the chart.